

City of Surrey

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Parks, Recreation and Culture Department



# Natural Areas: Yardwaste and Refuse

## Management Strategy

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# **Introduction**

## **The Costs of Illegal Dumping in Natural Areas**

Throughout the Lower Mainland, the illegal dumping of yardwaste and other refuse in urban natural areas is a serious environmental problem. Natural areas comprise a significant portion of Surrey's parkland, and yet they are frequently viewed as vacant, derelict lands and are often used for disposal of unwanted refuse. Residents, as well as commercial and industrial contractors, often opt for such illegal dumping as an easy method of waste disposal.

It is common to find piles of waste of various types and sizes in virtually all of the natural areas in Surrey. In most cases, the wastes contain at least some deleterious substance that will negatively affect the fragile habitats of natural areas; in all cases, the waste creates a visual blight to an otherwise pristine landscape.

Illegal dumping of wastes has serious detrimental effects on the environment, creates costly problems for parks operations, and impacts on the public's enjoyment of their parks. The following is a list of the negative effects of dumping waste in natural areas.

- Creates an unsightly mess with unpleasant odours
- Attracts pests such as rats
- Creates breeding grounds for flies and other pest insects
- Encourages further dumping at the same location
- Destroys natural vegetation, leading to slope erosion and destabilization
- Introduces invasive garden plants that choke out desirable native vegetation
- Contributes to loss of biodiversity and wildlife habitat
- Suffocates plant roots
- Creates hazard trees and alters water availability
- Increases fire hazard
- Introduces pollutants such as chemical fertilizers and pesticides which contaminate soils, groundwater and streams
- Reduces adjacent property values
- Requires difficult and costly clean-up

The primary focus of the strategy to deal with reducing yardwaste and refuse dumping in parks is education. Given the problem of enforcing "no dumping" laws, and the prohibitive clean-up costs, it seems that changing the public's attitudes and behaviours is the best way to proceed.

# **Background**

## **Factors Contributing to the Dumping Problem**

With Surrey's rapid growth, and the concurrent commercial and industrial growth, City parkland provision and development have attempted to keep pace: approximately 60% of the parkland inventory is now classified as natural area (1500 hectares). In other cities, where most parkland is developed, illegal dumping is not as serious a problem. However, with its large inventory of natural areas, Surrey experiences a high incidence of illegal dumping. Although most City residents respect the pristine attributes of these natural areas, there is still a growing trend of negative ecosystem impact due to illegal dumping.

Most offenders view illegal dumping as a cheap and convenient option, even though they are aware that dumping is illegal. Some offenders believe that dumping organic-waste is a type of composting and that it doesn't harm the environment. Ironically, a recent survey of forest edges has revealed that park operations staff themselves sometimes deposit wastes illegally (e.g. as a result of sport-field renovation programs). Dumping, it would seem, is irresistibly cheap, and convenient.

Unfortunately, once an area has been used for illegal dumping, it may become an established practice in the neighbourhood, making it increasingly difficult to redress any negative impacts. Although superficial clean-up of dump sites is possible, the long-term consequences of contamination, erosion, loss of native vegetation and loss of wildlife habitat irreversibly reduce biodiversity.

The absence of any official dumping sites in Surrey and the recent closure of the Surrey landfill are exacerbating the incidence of illegal dumping. Residents and contractors are less motivated to transport wastes to transfer stations in Coquitlam and Langley because of the distance and cost.

## **Types of Illegal Waste and Refuse**

Surrey staff report that yardwaste originating from local residents makes up approximately 70-75% of the dumped material in Surrey's natural areas. There are three main types of waste and refuse dumped in Surrey's parks.

1. Landscaping and yardwaste such as grass trimmings, plant pots, potting soils, leaves, ornamental plants, hedge trimmings, etc.
2. Household garbage such as furniture, mattresses, kitchen appliances, cardboard, Christmas trees, newspapers, diapers and shopping carts.
3. Construction wastes such as unwanted fill, gyproc and lumber.

## **Legal Methods of Waste Removal**

- The City conducts a weekly residential waste removal program that stipulates a two can limit per residence and a weekly recycling 'blue box' program.

- Since January 1998, a yardwaste collection program has been in place that allows unlimited disposal of organic yardwaste. Yardwaste is collected weekly and must be placed in clear, or biodegradable plastic bags. Larger materials such as branches can be tied into secure bundles no longer than 3 feet (branches must be less than 3 inches in diameter). There are no limits to the amount of yardwaste that can be put out for collection.
- For a fee, larger quantities of organic yardwaste can be disposed of at Enviro Wood Waste Ltd., 2460–192<sup>nd</sup> Street, Surrey. Commercial quantities of land clearing debris and wood products are also accepted.
- The City conducts an “Annual Spring Clean-up” whereby residents can place unusable items at the curbside, which are then picked up free of charge.
- The Surrey Chip-in Program, which began in 1995, provides residents with an easy and affordable method to dispose of Christmas trees. The Surrey Fire Fighters and the Surrey Special Events section of the City Manager’s Office host this corporate program. Residents may drop off their Christmas trees at a designated location during the first week of January.
- The Crescent Beach Compost Demonstration Garden and the Kwantlen Compost Education Centre were established in 1990 to provide information on effective methods for, and benefits of composting. The goal of these centres is to reduce the amount of yardwaste placed in the residential waste stream.

## **Current Situation**

### **Clean-Up Requests and Practices**

Historically, the clean-up of dumped waste in parks has been limited to responses to service requests from citizens. There is often a reluctance on behalf of staff to remove the waste, because they know that more will be dumped at the cleaned site—sometimes by the service requesters themselves.

When construction materials are dumped in natural areas adjacent to subdivisions under construction, and if the contractors or developers working in the area can be verified as the offenders, they will be notified to remove the waste. However, it is often cheaper and less time consuming to forego efforts at verification and simply clean the site.

At the present time, clean-up measures consist of redistributing compostable materials more evenly throughout a park site. If financial resources are available, construction materials and other non-compostable materials are removed and then disposed of in appropriate locations.

### **Prevention**

#### **Signage**

The primary method to prevent dumping is the installation of signs indicating that the land is parkland and that dumping waste in parkland is contrary to City bylaw s. Although effective to some degree, City staff report cases where the amount of waste at the base of these informational signs has measured up to three feet deep.

## **Bylaws and policies**

There are ample City and Provincial laws and policies that regulate illegal dumping in natural areas. For example, regulations for illegal dumping of waste are outlined in the *Surrey Parks, Recreation and Culture Facilities Regulation Bylaw, #13480, Part 4, General Regulations, Waste, 28-32*. The fine for dumping is \$100, or upon summary conviction, a penalty of not less than \$50 and not more than \$2000 plus cost of prosecution, or a term of imprisonment not exceeding three months. However, punitive actions are rare because apprehension is difficult.

The Provincial *Waste Management Act* stipulates that:

3 (2) Subject to subsection (5), a person must not, in the course of conducting an industry, trade or business, introduce or cause or allow waste to be introduced into the environment.

3 (3) Subject to subsection (5), a person must not introduce or cause or allow to be introduced into the environment, waste produced by any prescribed activity or operation.

3 (4) Subject to subsection (5), a person must not introduce waste into the environment in such a manner or quantity as to cause pollution.

9.1 (2) a person must not throw down, drop or otherwise deposit, and leave, in a public place anything in such circumstances as to cause or contribute to the defacement of that place by litter.

It is unknown as to whether the above Act has been utilized in any civil or criminal litigation in terms of its application to the yardwaste and refuse issue. One can safely presume that the Act would apply only in those unusual cases where the dumping is acute and significant, and therefore, would have little application to the chronic issue of dumping in Surrey's natural areas.

The Federal *Fisheries Act* stipulates that:

35 (1) No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat.

36 (3) No person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter such water.

The *Fisheries Act* is a powerful piece of legislation and can be valuable for protecting the fish-bearing waterways associated with natural areas. The decision to proceed with litigation or prosecution under this act rests with the Crown. However, as with the provincial *Waste Management Act*, it is likely that the *Fisheries Act* would be applied only in those unusual cases where the dumping incidence causes significant damage to waterways. It has yet to be applied as an effective tool to address chronic dumping in natural areas.

## **Education**

The Parks Division has introduced a number of initiatives aimed at informing the general public about the issue of dumping in natural areas.

- When responding to service requests for waste removal, staff also issues a “Do’s and Don’ts Regarding Greenbelts” information card to offenders.
- Informational presentations have occurred at elementary schools with some success.
- The Parks Division undertakes the award winning, ‘Environmental Extravaganza’ annually, which stresses, among many other themes, the need to respect and protect natural areas.

## **Volunteer Assistance**

In addition to utilizing staff, contractors, and individuals assigned (through the justice system) to do community service hours, the Parks Division has enjoyed great success in enlisting willing volunteers to assist in waste removal, through their Partners in Parks programs. It is estimated that approximately 20% of the waste removal is conducted through volunteer initiatives.

- **Despite these preventive measures, the incidence of dumping of yardwaste and refuse is still increasing.**

# **Yardwaste and Refuse Management Strategy**

The high incidence of illegal dumping within Surrey's natural areas warrants this *Yardwaste and Refuse Management Strategy* to provide direction and guidance to the Surrey Parks, Recreation and Culture Commission. This section of the Strategy outlines principles, articulates goals and objectives, and makes general recommendations to address illegal dumping.

## **Principles**

1. Natural areas are an important contributor to biodiversity in Surrey and the surrounding region, and they require protection and respect for their intrinsic ecological and social values.
2. Illegal dumping must be managed comprehensively to sustain the ecological and social values of natural areas.
3. The Parks Division, as principle land manager, has the responsibility to protect and manage these natural areas.
4. Both short- and long-term strategies will be required to protect natural areas. Prevention, public education, and community partnerships are key strategies.
5. Improper disposal of yardwastes and refuse causes significant damage the delicate ecosystems of Surrey's natural areas.
6. Punitive measures for offenders who damage natural areas is a last resort, but will still be part of a strategy to protect the natural areas.

## **Goals and Objectives**

- 1. Develop and implement a comprehensive yardwaste and refuse management program that will provide short, medium and long-term approaches to the management of illegal dumping.**

To date, the approach to the issue of illegal dumping in natural areas has been reactive and ad hoc. Although some educational and informational initiatives have been undertaken, there is little consistency in message themes, and varying results. Waste removal is not usually scheduled, but is done instead on a request for service basis. Short, medium and long-term initiatives will utilize staff, contractors and volunteers to effectively resolve the issue. The critical degree of the problem warrants giving very high priority to the development and implementation of this program.

- 2. Develop strong community and neighbourhood relationships for stewardship of the natural environment.**

Volunteers, neighbourhood and community groups can engender great support for the protection and respect for local natural areas. Concern for protecting the natural



environment is increasing, yet much of the public is unaware of the damage to natural areas from illegal dumping. The Parks Division staff should increase efforts to develop and reinforce community relationships in the interests of increased community environmental stewardship.

**3. Develop and implement a yardwaste and refuse management program with the primary focus of preventing the deposition of unwanted waste in natural areas.**

Although removal is a necessary component of the overall strategy, the emphasis of the management program should be on the educational and informational initiatives that will prevent future illegal dumping. Removal by itself is ineffective, because of inadequate funding and repeat dumping.

**4. Develop and implement appropriate enforcement strategies to deal with offenders who dump illegally in parks.**

Although prevention is the primary focus, appropriate enforcement strategies should be adopted. There must be willingness by the City, as supported by existing regulations, bylaws and policies, to seek restitution and damages from individuals, companies, or businesses when they are found to be transgressing.

**5. Develop and implement a Parks Division ‘organic-waste’ disposal program.**

Various Parks Division operation activities, including renovation programs and general maintenance programs, tend to utilize natural areas for deposition of organic-wastes. This is both detrimental to the natural environment, and sets a poor example for the public. Instead, the Parks Division should develop an organic-waste disposal program.

## **Recommendations**

### **General Guidelines**

These general guidelines will provide the basis for the Yardwaste and Refuse Management Program.

Zero tolerance for the deposition of wastes in natural areas unless approved by the land managers, currently the Urban Forestry and Environmental Services Section of the Parks Division.

Prevention of the deposition of waste as the primary focus in the long-term.

Public education and involvement in the program.

Removal of wastes on a priority basis.

Staff education and involvement, sometimes referred to as ‘buy-in’, across the Parks Division, including development of an organic-waste disposal program for parks operations.

Scheduled site monitoring following waste removal to determine overall success of any initiatives, and to deter further dumping.

## **Short- to Medium-Term Recommendations within 5 years**

In the short-term, the primary focus of the Yardwaste and Refuse Management Program should be the removal of the wastes from natural areas. Although prevention is the key to success in the long-term, the amount of waste materials and invasive plant species in natural areas dictates devoting immediate time, resources and energy to site clean-up. It is recommended that the Urban Forestry and Environmental Services Section accomplish this clean-up of natural areas with two general initiatives:

- Develop and implement a Citywide “clean-up push” that has an event appeal and is staged with a marketing plan, public relations and advertising component, and utilizes community leaders such as Councillors and Commissioners. This clean-up push would have a last for approximately three years, with the goal of removing approximately 60-70% of existing waste from the natural areas.

Local community associations, environmental groups, neighbourhood associations and adjacent schools could be invited to participate to assist in their local communities. The “push” could have a host of accompanying incentives to entice participation.

- Implement an ongoing program of waste removal as a significant part of the Urban Forestry and Environmental Services annual work plans, with an appropriate percentage of the operating budget allocated to site clean-ups. Site clean-ups would be done in conjunction with preventative measures, such as educational signage and distribution of leaflets to adjacent land owners (see Appendix A: Site Clean-Up Procedures). Monitoring activities of cleaned sites should also be ongoing to prevent further dumping.

## **Long-Term Recommendations**

The primary objective in the long-term prevention of dumping can be accomplished through a combination of four main initiatives: education, environmental stewardship programs, enforcement of existing regulations and bylaws, and regular monitoring of natural areas. The implementation of these initiatives can be ‘staged’ and worked in with the annual work plans of the Section, or separate funding can be sought through the budget process.

- **Education**

Education, the key to long-term prevention of dumping, should be aimed at changing public attitudes, beliefs, and practices. With attitudes of respect and sensitivity, and an increased awareness of the negative impacts on the environment, the incidences of dumping in natural areas should decrease.

The education thrusts can include the implementation of consistent educational signage in parkland, door-to-door “drops” of written environmental information, local newspaper advertisements, and school and community presentations. Messages should promote respect for natural areas, outline consequences of the dumping to the environment and the offenders, and provide for alternatives to dumping.

➤ **Environmental Stewardship Programs**

Environmental stewardship increases awareness of ecosystem needs and promotes the ethic of responsible citizenship, which is then passed on to future generations. The general public benefit by connecting with nature, learning about nature, getting to know the values and interests of their neighbours and participating in caring for their community. These experiences help develop a sense of pride.

Community environmental stewardship is necessary because the ‘top down’ approach, where government singularly manages, is ultimately ineffective and costly. Small stewardship groups are more adaptive and innovative than large agencies, and they can articulate for themselves their needs and priorities.

Community environmental stewardship can involve a number of activities ranging from one-time clean-ups, to on-going projects aimed at management of the entire natural area site. The more interesting, comprehensive and individualized the stewardship program, the greater the chances of success. Typical activities could include planning and management, education and awareness, research or assessment, condition monitoring, surveillance or ‘watchdog’ work, restoration or enhancement, and preservation of valued places.

The initiative to develop a community environmental stewardship program is recommended as a second priority initiative following implementation of the educational initiative.

➤ **Enforcement of Existing Regulations, Laws, and Bylaws**

As mentioned earlier in this document, there are a plethora of senior government laws and regulations, City bylaws and policies that specifically regulate the dumping of waste in natural areas. Although the threat of punitive measures can be a deterrent, it is clear that neither punitive measures nor apprehension are likely outcomes. And, while there are various enforcement agencies in existence—the Royal Canadian Mounted Police, senior government habitat enforcement agencies, the City Bylaw Enforcement and Licensing Section—they have minimal resources to effectively curtail dumping.

A comprehensive initiative that addresses enforcement of existing regulations and laws should be pursued, albeit as a low priority. Time invested in such enforcement has little impact compared to education.

On the other hand, community-initiated monitoring of natural areas can lead to a greater witnessing of violations and effective informal enforcement of regulations and laws. Community environmental stewardship programs will reinforce this increased vigilance.

➤ **Regular Monitoring of Natural Areas**

City staff visit most natural areas, approximately once every five years. This provides ample opportunity for illegal dumping—a “vacant” looking area can be an open invitation for some offenders. Because of inadequate funding, frequent and

regular monitoring is not a feasible strategy and should be deferred until further resources can be found.

**Recommended Monitoring Strategies**

- Site-specific monitoring should be implemented for those sites that have received clean-ups, are environmentally sensitive and prone to dumping, or are the subject of other management activities such as trail and tree hazard inspections.
- Encourage and support members of community environmental stewardship programs who have an interest in conducting site surveys.

# Appendices

## Appendix A: Site Clean-up Procedures

### 1. Priorizing Sites for Clean-Up

To determine which sites should be cleaned first, assess the following factors.

- Degree of ecological impact, including erosion and damage to habitat, spread of invasive plant species, presence of deleterious substances and environmental sensitivity of the site
- Degree of public concern, including risk and hazard assessment, number of complaints, proximity to public areas, potential pest problems associated with the waste
- Fire hazard rating
- Site accessibility

### 2. Implementing Clean-Up of Sites

- Arrange for delivery of education and information brochures to the neighbourhood prior to, or on, the same day as clean-up. This could be carried out by volunteers.
- Make appropriate arrangement for waste removal. This may include delivery of disposal bins, or requesting the assistance the Engineering Department.
- Identify hazards and safety concerns, such as the presence of needles, diapers, dog feces, glass, slope, etc.
- Ensure appropriate tools are available for staff and volunteers (e.g. gloves, shovels, pitch forks, rakes, trowels, garbage bags, etc.)
- Ensure volunteers sign the “Partners in Parks” Sign Up Sheet.
- If necessary, review safety and work procedures with crew/volunteers.
- Where appropriate, install educational signs as soon as possible after completion of clean-up. Retain signs for up to one year.
- Record work carried out on-site and make recommendations for monitoring and maintenance activities. Enter these records into the database.
- Identify locations where waste should be delivered. Waste should be separated into recyclables, composting, etc. Ensure invasive plants are destroyed and not placed into compost.
- Conduct clean-ups with volunteers preferably in the spring when people are active in their gardens and energy levels are up.
- Conduct clean-ups in tandem with other initiatives such as Earth Day, Pitch-in Week, etc.

### **3. Monitoring and Maintenance After Clean-Ups**

- Determine frequency of monitoring needed based on specific site conditions.
- Identify objectives of monitoring (e.g. re-growth of invasive plants, assessment of new plantings, reoccurrence of dumping, effectiveness of signs).
- Determine maintenance requirements, based on monitoring results. This may include watering, or replacement of new plantings, or removal of newly dumped waste.
- Based on monitoring results, determine when signs can be removed.